

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in Japan Parent Application No. 2004-107905, filed on March 31, 2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 6, 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 & 7, the term "MID" recited at line 2 must be spelled out once. Examiner interprets MID as a Molded Interconnect Device.

Regarding claim 6, the term "approximately twice the height" is a relative term which renders the claim indefinite. The term "approximately twice the height" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirahata (JP05-167241 A).
5. Regarding claim 1, Shirahata discloses a connecting method, being a method for connecting conducting lines 10 (fig. 1) and contacts using a light beam 5 (fig. 1) (abstract); including a step for installing conducting lines in regions wherein contacts are formed (abstract; paragraph 0001); a step for supplying solder to regions wherein contacts are formed (; a step for installing a mask 1 (fig. 1) that shields at least the regions between the contacts from a light beam (paragraph 0007), and a step for connecting conducting lines and contacts by melting solder by illuminating with a light beam (paragraphs 0010, 0012); wherein, in the step for installing the mask 1 (fig. 1), said mask shields at least the portions of the connector 9 (fig. 1) that are close to the light beam 5 (fig. 1); wherein the illumination of the light beam 5 (fig. 1) is performed so as to scan 8 (fig. 1) the region wherein bonding is to be done; a mask 1 (fig. 1) for a light beam 5 (fig. 1), being a mask for light beam bonding, said mask shielding a portion of the regions that are not contacts from a light beam, when connecting the contacts and the conducting lines with a light beam (abstract; paragraphs, 0010 and 0012); and A mask according to claim 8, where the aforementioned mask is a jig 1 (fig. 1) that presses a coaxial cable against a connector during manufacture of the connector (abstract) and wherein the material of the aforementioned mask is iron (abstract).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirahata (JP05-167241 A) in view of Okano (US 6,645,001 B2) and further in view of Sunda (US 6,013,897).

8. Regarding claims 4-6, Shirahata discloses the claimed invention, except for forming contacts on a connector housing by MID; connector, being a connector for light beam bonding, contacts being formed on the housing thereof, wall portions defining the regions that accept the conductors of the conducting lines being formed on the upper surface of the connector in a direction parallel to the contacts or the conducting lines, said wall portions being formed higher than the height of the conductors; and whereof the height of the aforementioned wall portions is approximately twice the height of the aforementioned conducting lines; connector, being a connector for light beam bonding, contacts being formed on the housing thereof, wall portions defining the regions that accept the conductors of the conducting lines being formed on the upper surface of the connector in a direction parallel to the contacts or the conducting lines, said wall portions being formed higher than the height of the conductors; and whereof the height of the aforementioned wall portions is approximately twice the height of the aforementioned conducting lines. However, Okano teaches forming contacts on a

connector housing by MID (col. 3, lines 49-52). Sunda discloses connector 51 (fig. 4A), being a connector for light beam bonding, contacts being formed on the housing thereof, wall portions defining the regions that accept the conductors of the conducting lines being formed on the upper surface of the connector in a direction parallel to the contacts or the conducting lines, said wall portions being formed higher than the height of the conductors; and whereof the height of the aforementioned wall portions is approximately twice the height of the aforementioned conducting lines (see figure 4A; col. 5, lines 35-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Shirahata's reference, to include forming contacts on a connector housing by MID and walls portions, as suggested and taught by Okano and Sund , for the purpose of providing a better bonding contacts and connection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571) 270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/
Examiner, Art Unit 3742
/TU B HOANG/
Supervisory Patent Examiner, Art Unit 3742